

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: JULIA J. J. J. Examiner #: 17 Date: 1/1/02
Art Unit: 11614 Phone Number 301-582 Serial Number: 1-5
Mail Box and Bldg/Room Location: 2D04 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Dental & Orologic Composition

Inventors (please provide full names): See Bib Data Sheet attached

Earliest Priority Filing Date: 12/3/99

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Structure Search & Composition
selected Claims 1-12 + 21-22
Photo Catalytic Titanium Dioxide
See attached Claim

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 - 703-308-4498
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STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>Jan</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: <u>1-582</u>	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>5.1.02</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>5.1.02</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>✓</u>	Other _____	Other (specify) _____

=> fil reg

FILE 'REGISTRY' ENTERED AT 09:32:16 ON 01 MAY 2002
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 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Jan Delaval
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 Biotechnology & Chemical Library
 CM1 1E07 - 703-308-4498
 jan.delaval@uspto.gov

STRUCTURE FILE UPDATES: 29 APR 2002 HIGHEST RN 409058-68-0
 DICTIONARY FILE UPDATES: 29 APR 2002 HIGHEST RN 409058-68-0

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

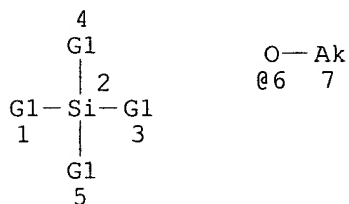
Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES
 for more information. See STNote 27, Searching Properties in the CAS
 Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d sta que l41

L33 STR



VAR G1=X/6

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L35 SCR 1735 OR 1817

L39 SCR 2039 OR 2050 OR 2049 OR 2053 OR 2052 OR 2051 OR 2054

L41 2617 SEA FILE=REGISTRY CSS FUL L33 AND L35 NOT L39

100.0% PROCESSED 385675 ITERATIONS

2617 ANSWERS

SEARCH TIME: 00.00.15

=> d his

(FILE 'HOME' ENTERED AT 08:30:50 ON 01 MAY 2002)
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 08:31:00 ON 01 MAY 2002

E JP99-344938/AP,PRN

L1 1 S E4

E KURARAY/PA,CS

E KURAR/PA,CS

L2 11364 S E5-E15

E MASUHARA E/AU

L3 190 S E3-E6
 E KADOMA Y/AU
 L4 113 S E3,E11,E12
 E YAMAUCHI J/AU
 L5 327 S E3-E5,E11-E16
 E YAMAGUCHI S/AU
 L6 885 S E3-E5,E48
 E EIICHI M/AU
 L7 1 S E7
 E YOSHINORI K/AU
 E JUNICHI Y/AU
 L8 1 S E4
 E SATOSHI Y/AU
 L9 2 S E3,E4
 L10 12736 S L2-L9
 L11 393 S L10 AND ?TITAN?
 L12 171 S L10 AND TI
 L13 242 S L10 AND TIO2
 L14 574 S L11-L13
 L15 10 S L14 AND SI
 L16 37 S L14 AND SIO2
 L17 120 S L14 AND (?SILIC? OR ?SILAN? OR SILAZ? OR ?SILOX?)
 L18 123 S L15-L17
 E OKADA K/AU
 L19 566 S E3
 E OKADA KOI/AU
 L20 142 S E4,E5
 E KOICHI O/AU
 L21 28 S L19,L20 AND (?TITAN? OR TI OR TIO2)
 L22 8 S L21 AND (SI OR SIO2 OR ?SILIC? OR ?SILAN? OR SILAZ? OR ?SILOX
 L23 0 S L14,L21 AND ?SILAZ?
 L24 128 S L18,L22
 L25 1 S L1 AND L24
 SEL RN L25
 L26 127 S L24 NOT L25

FILE 'REGISTRY' ENTERED AT 08:37:54 ON 01 MAY 2002

L27 7 S E1-E7

FILE 'HCAPLUS' ENTERED AT 08:38:13 ON 01 MAY 2002

SET SMARTSELECT ON

L28 SEL L26 1- RN : 511 TERMS
 SET SMARTSELECT OFF

FILE 'REGISTRY' ENTERED AT 08:38:19 ON 01 MAY 2002

L29 511 S L28
 L30 33 S L29 AND TI/ELS
 L31 71 S L29 AND SI/ELS
 L32 66 S L31 NOT L30
 L33 STR
 L34 9 S L33 CSS
 L35 SCR 1735 OR 1817
 L36 9 S L33 AND L35 CSS
 L37 SCR 2127 OR 1838 OR 1992 OR 2016 OR 2021 OR 2008
 L38 15 S L33 AND L35 NOT L37 CSS
 L39 SCR 2039 OR 2050 OR 2049 OR 2053 OR 2052 OR 2051 OR 2054
 L40 9 S L33 AND L35 NOT L39 CSS
 E TI/ELS
 L41 2617 S L33 AND L35 NOT L39 CSS FUL
 SAV L41 JAGOE728/A
 L42 670 S L41 NOT PMS/CI
 L43 3 S L42 AND IDS/CI
 L44 2 S L43 NOT N/ELS

L45 226 S L42 AND NC>=2
L46 215 S L45 AND COMPD
L47 11 S L45 NOT L46
L48 11 S L46 AND OL
L49 441 S L42 NOT L43-L48
E TITANIUM OXIDE/CN
L50 2 S E3
L51 1947 S L41 NOT L42-L49
L52 13 S 67-56-1 OR 64-17-5 OR 71-23-8 OR 67-63-0 OR 62309-51-7 OR 352
L53 5 S (ACETONE OR CHLOROFORM OR HEXANE OR ETHYL ACETATE OR METHYL E
L54 3 S (SILVER OR COPPER OR ZINC)/CN

FILE 'HCAPLUS' ENTERED AT 08:57:33 ON 01 MAY 2002

L55 25787 S L44 OR L49
L56 5136 S L55 AND (L50 OR TI OR TIO2 OR ?TITAN?)

FILE 'REGISTRY' ENTERED AT 09:00:04 ON 01 MAY 2002

L57 1 S TITANIUM/CN

FILE 'HCAPLUS' ENTERED AT 09:00:10 ON 01 MAY 2002

L58 566 S L57 AND L55
L59 5144 S L56, L58
L60 644 S L59 AND L52, L53
L61 1938 S L59 AND (?ALCOHOL? OR WATER OR H2O OR W OR ACETONE OR METHYLE

FILE 'REGISTRY' ENTERED AT 09:01:35 ON 01 MAY 2002

L62 1 S TOLUENE/CN
L63 1 S WATER/CN

FILE 'HCAPLUS' ENTERED AT 09:01:42 ON 01 MAY 2002

L64 187 S L62, L63 AND L59
L65 2116 S L60, L61, L64
L66 893 S L59 AND (METHANOL OR ETHANOL OR PROPANOL OR BUTANOL OR MEOH O
L67 48 S L59 AND (METHYL OR ETHYL OR PR PROPYL OR ISOPROPYL OR BUTYL) (
L68 364 S L66, L67, L65 AND (L54 OR SILVER OR COPPER OR ZINC OR AG OR CU
E DENTAL/CT
E E47+ALL
L69 10183 S E2
E E2+ALL
L70 15374 S E2+NT
L71 432 S E49+NT
E E50+ALL
L72 16015 S E9, E8+NT
L73 2 S L68 AND L69-L72
E MOUTH/CT
E E3+ALL
L74 39822 S E7+NT
E MEDICAL GOODS/CT
E E3+ALL
L75 21086 S E5, E6, E4+NT
L76 4 S L68 AND L74, L75
L77 2 S L76 NOT (BIOFILM OR IR)/TI
L78 2 S L73, L77
L79 20 S L10 AND L55
L80 4 S L79 AND L59
L81 1 S L80 AND L78
L82 16 S L79 NOT L80
L83 22 S L59 AND L69-L72, L74, L75
L84 18 S L83 NOT L76
L85 20 S L78, L81, L84
L86 20 S L85 AND L1-L26, L55, L56, L58-L61, L64-L85

FILE 'REGISTRY' ENTERED AT 09:14:16 ON 01 MAY 2002

L87 1 S SILICA/CN

FILE 'HCAPLUS' ENTERED AT 09:14:21 ON 01 MAY 2002

L88 166604 S (L87 OR SILICA OR SIO2 OR SILICON? OR SI) AND (TI OR TIO2 OR
 L89 127322 S (?SILIC? OR ?SILAZAN? OR ?SILAN? OR ?SILOX?) AND (TI OR TIO2
 L90 968 S L88,L89 AND L69-L72,L74,L75
 L91 281 S L90 AND (L54 OR SILVER OR COPPER OR ZINC OR AG OR CU OR ZN)
 L92 10 S L91 AND L52,L53
 L93 14 S L91 AND (METHANOL OR ETHANOL OR PROPANOL OR BUTANOL OR MEOH O
 L94 0 S L91 AND (METHYL OR ETHYL OR PR PROPYL OR ISOPROPYL OR BUTYL) (
 L95 20 S L92,L93
 L96 20 S L95 AND L1-L26,L55,L56,L58-L61,L64-L85,L88-L95
 L97 38 S L86,L96
 L98 38 S L97 AND (?SILIC? OR ?SILAN? OR ?SILAZ? OR ?SILOX? OR SI OR SI
 L99 38 S L98 AND (?TITAN? OR TI OR TIO2)
 L100 31 S L99 AND (DENTAL OR DENTIST? OR ORTHODONT? OR STOMATO? OR TOOT
 L101 7 S L99 NOT L100
 SEL DN 6 7 8 9 16 L100
 L102 26 S L100 NOT E1-E5
 SEL DN 1 5 9 10 13 25
 L103 6 S L102 AND E6-E11
 L104 8 S L78,L81,L103
 L105 8 S L104 AND L1-L26,L55,L56,L58-L61,L64-L86,L88-L104
 SEL HIT RN

FILE 'REGISTRY' ENTERED AT 09:31:44 ON 01 MAY 2002

L106 15 S E12-E26

FILE 'REGISTRY' ENTERED AT 09:32:16 ON 01 MAY 2002

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L106 ANSWER 1 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 51745-87-0 REGISTRY

CN Titanium oxide (9CI) (CA INDEX NAME)

PR 13463-67-7

DR 158518-86-6, 52624-13-2

MF O . Ti

CI TIS

LC STN Files: ANABSTR, BIOTECHNO, CA, CAPLUS, CHEMLIS'

IFIPAT, IFIUDB, TOXCENTER, USPATFULL, VTB

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory

Component	Ratio	Component Registry Number
O	x	17778-80-2
Ti	x	7440-32-6

These are one
 hit structures
 for ref 1-8,
 Set 405

945 REFERENCES IN FILE CA (1967 TO DATE)

43 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

945 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 111:62793

REFERENCE 2: 110:239220

REFERENCE 3: 110:236139

REFERENCE 4: 110:218780

REFERENCE 5: 110:216246

REFERENCE 6: 110:207850

REFERENCE 7: 110:203639

REFERENCE 8: 110:203611

REFERENCE 9: 110:199259

REFERENCE 10: 110:184406

L106 ANSWER 2 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 13463-67-7 REGISTRY

CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1385RN59

CN 234DA

CN 500HD

CN 63B1 White

CN A 100

CN A 160

CN A 200

CN A 200 (pigment)

CN A 330

CN A 330 (pigment)

CN A-Fil Cream

CN A-FN 3

CN Aerolyst 7710

CN Aerosil P 25

CN Aerosil P 25S6

CN Aerosil P 27

CN AF-E 3D

CN AK 15

CN AK 15 (pigment)

CN Amperit 780.0

CN AMT 100

CN AMT 600

CN AUF 0015S

CN Austiox R-CR 3

CN B 101

CN B 101 (pigment)

CN Bayer R-FD 1

CN Bayertitan A

CN Bayertitan AN 3

CN Bayertitan R-FD 1

CN Bayertitan R-FK 21

CN Bayertitan R-FK-D

CN Bayertitan R-KB 2

CN Bayertitan R-KB 3

CN Bayertitan R-KB 4

CN Bayertitan R-KB 5

CN Bayertitan R-KB 6

CN Bayertitan R-U 2

CN Bayertitan R-U-F

CN Bayertitan R-V-SE 20

CN Bayertitan T

CN Bistrater L-NSC 200C

CN BR 29-7-2

CN C 97

CN C 97 (oxide)

CN C.I. 77891

CN C.I. Pigment White 6

CN Cab-O-Ti

CN CG-T
CN CL 310
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
DISPLAY
AR 51745-87-0
DR 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1309-63-3, 1344-29-2,
55068-84-3, 55068-85-4, 62338-64-1, 101239-53-6, 98084-96-9, 37230-92-5,
37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7,
116788-85-3, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1,
195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7
MF O2 Ti
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA,
ULIDAT, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

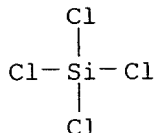
O=Ti=O

98838 REFERENCES IN FILE CA (1967 TO DATE)
1420 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
99039 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288279
REFERENCE 2: 136:288071
REFERENCE 3: 136:288055
REFERENCE 4: 136:288035
REFERENCE 5: 136:288013
REFERENCE 6: 136:287873
REFERENCE 7: 136:287871
REFERENCE 8: 136:287822
REFERENCE 9: 136:287765
REFERENCE 10: 136:287748

L106 ANSWER 3 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN 10026-04-7 REGISTRY
CN Silane, tetrachloro- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Silicon chloride (SiCl4) (8CI)
OTHER NAMES:
CN Perchlorosilane
CN Silicon chloride
CN Silicon tetrachloride
CN Tetrachlorosilane
CN Tetrachlorosilicon
FS 3D CONCORD

MF C14 Si
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7303 REFERENCES IN FILE CA (1967 TO DATE)
 241 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 7309 REFERENCES IN FILE CAPLUS (1967 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288047
 REFERENCE 2: 136:283589
 REFERENCE 3: 136:283075
 REFERENCE 4: 136:283008
 REFERENCE 5: 136:281517
 REFERENCE 6: 136:270761
 REFERENCE 7: 136:270751
 REFERENCE 8: 136:270500
 REFERENCE 9: 136:270128
 REFERENCE 10: 136:270117

L106 ANSWER 4 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 7732-18-5 REGISTRY

CN Water (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Distilled water

CN DRiWATER

CN Hydrogen oxide (H2O)

CN R 718

FS 3D CONCORD

MF H2 O

CI COM

LC STN Files: ANABSTR, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL, VTB

(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

H2O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

245726 REFERENCES IN FILE CA (1967 TO DATE)
867 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
246121 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288330
REFERENCE 2: 136:288329
REFERENCE 3: 136:288327
REFERENCE 4: 136:288326
REFERENCE 5: 136:288322
REFERENCE 6: 136:288320
REFERENCE 7: 136:288308
REFERENCE 8: 136:288299
REFERENCE 9: 136:288265
REFERENCE 10: 136:288262

L106 ANSWER 5 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 7631-86-9 REGISTRY

CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1165MP
CN 175GR
CN 300CF
CN 30R50
CN 30R7
CN 3K
CN 3KS
CN 400WQ
CN 5X
CN 937L
CN 940UP
CN 955W
CN 980H
CN A 175
CN A 200
CN A 300
CN A 380
CN Acematt HK 400
CN Acematt OK 607
CN Acticel
CN Adelite 20N
CN Adelite 30
CN Adelite A
CN Adelite AD 321

CN Adelite AT
 CN Adelite AT 20
 CN Adelite AT 20A
 CN Adelite AT 20N
 CN Adelite AT 20Q
 CN Adelite AT 20S
 CN Adelite AT 30
 CN Adelite AT 30A
 CN Adelite AT 30B
 CN Adelite AT 30S
 CN Adelite AT 40
 CN Adelite AT 50
 CN Adelite BT 55
 CN Adelite BT 59
 CN Adelite CT 100
 CN Adelite CT 300
 CN Admafine C 5
 CN Admafine SD 25R
 CN Admafine SE 5100
 CN Admafine SO-C 1
 CN Admafine SO-C 5
 CN Admafine SO-E 1
 CN Admafine SO-E 2
 CN Admafine SO-E 5
 CN Admatechs SO-E 2
 CN Aerogel 200

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

FS 3D CONCORD
 DR 11139-72-3, 11139-73-4, 12125-13-2, 12737-36-9, 12753-63-8, 12765-74-1,
 12774-28-6, 9049-77-8, 1340-09-6, 172306-09-1, 173299-41-7, 127689-16-1,
 127831-27-0, 126879-14-9, 126879-30-9, 126879-49-0, 53468-64-7,
 125623-17-8, 56645-27-3, 56731-06-7, 122985-48-2, 55599-33-2, 60572-11-4,
 62655-73-6, 97343-62-9, 97709-14-3, 98226-40-5, 98253-25-9, 67167-16-2,
 113384-41-1, 50813-13-3, 50926-93-7, 50935-83-6, 51542-57-5, 51542-58-6,
 61673-46-9, 108727-71-5, 136881-80-6, 37220-24-9, 37241-25-1, 37334-65-9,
 37340-45-7, 37380-93-1, 139074-73-0, 137263-03-7, 145686-91-5,
 145808-77-1, 70536-23-1, 70563-35-8, 78207-17-7, 146585-72-0, 152787-33-2,
 155552-25-3, 155575-05-6, 83589-56-4, 83652-92-0, 149779-02-2, 87501-59-5,
 89493-21-0, 39336-66-8, 39372-58-2, 39409-25-1, 39443-40-8, 39456-81-0,
 52350-43-3, 179046-03-8, 179733-77-8, 185461-90-9, 188357-77-9,
 191289-29-9, 206770-31-2, 207868-97-1, 217643-58-8, 264907-28-0,
 330152-64-2, 341028-71-5, 368432-40-0

MF 02 Si

CI COM

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS,
 BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,
 CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB,
 DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
 ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA,
 MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PHARMASEARCH, PIRA,
 PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU,
 VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

O=Si=O

234613 REFERENCES IN FILE CA (1967 TO DATE)

4651 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

235054 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288211
REFERENCE 2: 136:288209
REFERENCE 3: 136:288059
REFERENCE 4: 136:288058
REFERENCE 5: 136:288050
REFERENCE 6: 136:288046
REFERENCE 7: 136:288004
REFERENCE 8: 136:288000
REFERENCE 9: 136:287985
REFERENCE 10: 136:287876

L106 ANSWER 6 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 7440-66-6 REGISTRY

CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN AN 325

CN Asarco L 15

CN Blue powder

CN Ecka 4

CN F 1000

CN F 1000 (metal)

CN F 1500T

CN F 2000

CN F 2000 (metal)

CN LS 2

CN LS 2 (element)

CN LS 4

CN LS 5

CN LS 5 (metal)

CN NC-Zinc

CN Rheinzink

CN UF

CN UF (metal)

CN VM 4Pl6

CN Zinc Dust 3

DR 12793-53-2, 195161-85-4, 199281-21-5, 298688-49-0

MF Zn

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHARMASEARCH, PIRA, PROMT,
RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

Zn

207205 REFERENCES IN FILE CA (1967 TO DATE)
11014 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
207491 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288297
REFERENCE 2: 136:288289
REFERENCE 3: 136:288287
REFERENCE 4: 136:288271
REFERENCE 5: 136:288257
REFERENCE 6: 136:288254
REFERENCE 7: 136:288215
REFERENCE 8: 136:288160
REFERENCE 9: 136:288158
REFERENCE 10: 136:288131

L106 ANSWER 7 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 7440-50-8 REGISTRY

CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 100RXH
CN 1100T
CN 115A
CN 1721 Gold
CN 200RL
CN 22BB400
CN 2L3GT
CN 3EC
CN 3EC-HTE
CN 3EC-III
CN 3EC-VLP
CN 3EC3
CN 3L Fire
CN Allbri Natural Copper
CN Arwood copper
CN BHN 02T
CN BHY 02B-T
CN BHY 13T
CN BHY 22B-T
CN BPF 18
CN BSH
CN BSH (metal)
CN C 100
CN C 100 (metal)
CN C.I. 77400
CN C.I. Pigment Metal 2
CN CDX
CN CDX (metal)
CN CE 1100
CN CE 1110

CN CE 115
CN CE 15
CN CE 25
CN CE 7
CN CE 7 (metal)
CN CE 8A
CN CF 78
CN CF-T 8
CN Copper element
CN Copper fulleride (CuC20)
CN Copper Powder
CN CS-F 150E
CN CT 315E
CN CU 112
CN Cu-At-W-250
CN CU-FN 10
CN CuEP
CN CuEPP
CN CuLox 6010
CN CuLox 6030

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
DISPLAY

DR 133353-46-5, 133353-47-6, 65555-90-0, 72514-83-1, 195161-80-9

MF Cu

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2,
HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT,
NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2,
USPATFULL, VETU, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

Cu

356879 REFERENCES IN FILE CA (1967 TO DATE)
20252 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
357388 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288297
REFERENCE 2: 136:288287
REFERENCE 3: 136:288286
REFERENCE 4: 136:288273
REFERENCE 5: 136:288264
REFERENCE 6: 136:288256
REFERENCE 7: 136:288254
REFERENCE 8: 136:288205
REFERENCE 9: 136:288193

REFERENCE 10: 136:288160

L106 ANSWER 8 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 7440-32-6 REGISTRY

CN Titanium (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Alpaste RTA 030

CN C.P. Titanium

CN Dentcraft Titan Ingot

CN EBT

CN EBT (metal)

CN Elgard 210

CN M 350

CN M 350 (metal)

CN N 233

CN Smelloff-Cutter Titanium

CN TC 459

CN TG-Tv

CN Timet 115

CN Titan 20A

CN Titanium element

CN Titanium fulleride (TiC20)

CN TP270H

CN TPS 350

CN TR 28C

CN TW 340

CN Ventron 00901

DR 53549-90-9, 54319-51-6, 57854-37-2, 62650-70-8, 67796-94-5, 182260-48-6,
195161-81-0

MF Ti

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CIN, CSCEM, CSNB, DDFU, DETHERM*, DIOGENES,
DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*,
IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA,
PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

Ti

113090 REFERENCES IN FILE CA (1967 TO DATE)

4844 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

113257 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288286

REFERENCE 2: 136:288269

REFERENCE 3: 136:288264

REFERENCE 4: 136:288259

REFERENCE 5: 136:288003

REFERENCE 6: 136:287970

REFERENCE 7: 136:287872

REFERENCE 8: 136:287837

REFERENCE 9: 136:287820

REFERENCE 10: 136:287778

L106 ANSWER 9 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 7440-22-4 REGISTRY

CN Silver (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1520D

CN 15ED001

CN 15ED173

CN 3200HD

CN Ag 3010

CN Ag-C-GS

CN AG-CO

CN Ag-E 350

CN AgC 239

CN AgC-A

CN AGF 20S

CN Algaedyn

CN Argentum

CN Astroflake 5

CN AX 10C

CN AY 6010

CN AY 6080

CN C 200

CN C 200 (metal)

CN C.I. 77820

CN Carey Lea silver

CN Colloidal silver

CN D 25

CN D 25 (metal)

CN Degussa 67

CN Degussa 80

CN Dotite XA 208

CN E 20

CN EA 0008

CN EA 295

CN ED 6036

CN EGED

CN EPC 100

CN Epinall

CN ESL 9912A

CN F 201

CN FA 2

CN FA 2 (metal)

CN FA 312

CN G 12

CN G 12 (metal)

CN G 13

CN G 13 (metal)

CN HCF 38

CN Jelcon SH 1

CN KS

CN KS (metal)

CN L 3

CN L 3 (element)

CN LA 113

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
DISPLAY

DR 87354-45-8, 87370-84-1

MF Ag
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA,
CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX,
CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU,
EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB,
IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT,
RTECS*, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(*Enter CHEMLIST File for up-to-date regulatory information)

Ag

115516 REFERENCES IN FILE CA (1967 TO DATE)
3943 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
115724 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288307
REFERENCE 2: 136:288264
REFERENCE 3: 136:288211
REFERENCE 4: 136:288025
REFERENCE 5: 136:287986
REFERENCE 6: 136:287985
REFERENCE 7: 136:287984
REFERENCE 8: 136:287951
REFERENCE 9: 136:287906
REFERENCE 10: 136:287876

L106 ANSWER 10 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 681-84-5 REGISTRY

CN Silicic acid (H₄SiO₄), tetramethyl ester (8CI, 9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Methyl silicate ((MeO)₄Si) (6CI)

OTHER NAMES:

CN CLG 520

CN KBM 04

CN LS 540

CN Methyl orthosilicate

CN Methyl silicate

CN Methyl silicate ((CH₃)₄SiO₄)

CN Methyl Silicate 28

CN Methyl Silicate 39

CN MSP 150

CN Silane, tetramethoxy-

CN Silicon methoxide (Si(OMe)₄)

CN Silicon tetramethoxide

CN SIT 7510.0

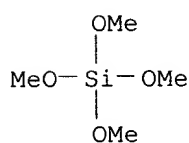
CN T 1980

CN Tetramethoxysilane

CN Tetramethyl orthosilicate

CN Tetramethyl silicate

CN TMOS
 CN TSL 8114
 FS 3D CONCORD
 DR 12547-31-8
 MF C4 H12 O4 Si
 CI COM
 LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS,
 CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB,
 DETHERM*, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDb, MEDLINE,
 MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, ULIDAT,
 USPAT2, USPATFULL, VTb
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3374 REFERENCES IN FILE CA (1967 TO DATE)
 253 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 3383 REFERENCES IN FILE CAPLUS (1967 TO DATE)
 98 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:284367
 REFERENCE 2: 136:283091
 REFERENCE 3: 136:264567
 REFERENCE 4: 136:259207
 REFERENCE 5: 136:258892
 REFERENCE 6: 136:256453
 REFERENCE 7: 136:256451
 REFERENCE 8: 136:253066
 REFERENCE 9: 136:253065
 REFERENCE 10: 136:253064

L106 ANSWER 11 OF 15 REGISTRY COPYRIGHT 2002 ACS
 RN 141-78-6 REGISTRY
 CN Acetic acid ethyl ester (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Acetic acid, ethyl ester
 CN Acetic ether
 CN Acetidin
 CN Acetoxyethane
 CN Ethyl acetate
 CN Ethyl ethanoate
 CN EtOAc
 CN Vinegar naphtha

FS 3D CONCORD
MF C4 H8 O2
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM, CSNB, DDFU, DETHERM*,
DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2,
GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO,
SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Et-O-Ac

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

18197 REFERENCES IN FILE CA (1967 TO DATE)
101 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
18234 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288309
REFERENCE 2: 136:285076
REFERENCE 3: 136:284463
REFERENCE 4: 136:284376
REFERENCE 5: 136:283990
REFERENCE 6: 136:283588
REFERENCE 7: 136:283501
REFERENCE 8: 136:283494
REFERENCE 9: 136:283447
REFERENCE 10: 136:283339

L106 ANSWER 12 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 78-93-3 REGISTRY

CN 2-Butanone (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 3-Butanone

CN Butanone

CN Ethyl methyl ketone

CN MEK

CN Methyl ethyl ketone

FS 3D CONCORD

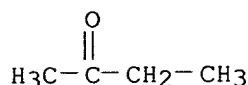
DR 135311-02-3

MF C4 H8 O

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM, CSNB, DDFU, DETHERM*,
DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2,
GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,

MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO,
SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(*Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17265 REFERENCES IN FILE CA (1967 TO DATE)
156 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
17293 REFERENCES IN FILE CAPLUS (1967 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288322
REFERENCE 2: 136:288309
REFERENCE 3: 136:286377
REFERENCE 4: 136:285771
REFERENCE 5: 136:285076
REFERENCE 6: 136:284845
REFERENCE 7: 136:284833
REFERENCE 8: 136:284520
REFERENCE 9: 136:284502
REFERENCE 10: 136:284413

L106 ANSWER 13 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 78-10-4 REGISTRY

CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Ethyl silicate ((EtO)4Si) (6CI)

OTHER NAMES:

CN Colcoat 6P

CN Conservare OH

CN Dynasil A

CN ES 100

CN ES 100 (silicate)

CN ES 140

CN ES 28

CN ES 28 (ester)

CN ES 45

CN Ethyl orthosilicate

CN Ethyl silicate 28

CN Ethyl Silicate 45

CN KBE 04

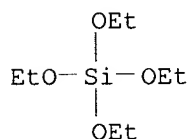
CN LS 2340

CN LS 2430

CN SI 42

CN Silane, tetraethoxy-

CN Silicon ethoxide
 CN Silicon ethoxide (Si(OEt)4)
 CN Silicon tetraethoxide
 CN Silicon tetraethoxide (Si(OC2H5)4)
 CN Silicon tetraethoxide (Si(OEt)4)
 CN Silikan L
 CN Steinfestiger OH
 CN T 1807
 CN TEOS
 CN TES 28
 CN Tetraethoxysilane
 CN Tetraethoxysilicon
 CN Tetraethoxysilicon(IV)
 CN Tetraethyl orthosilicate
 CN Tetraethyl silicate
 CN TSL 8124
 FS 3D CONCORD
 MF C8 H20 O4 Si
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
 CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST,
 CHEMSAFE, CIN, CSCHM, CSNB, DETHERM*, GMELIN*, HODOC*, HSDB*, IFICDB,
 IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT,
 RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

13113 REFERENCES IN FILE CA (1967 TO DATE)
 949 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 13145 REFERENCES IN FILE CAPLUS (1967 TO DATE)
 216 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288306
 REFERENCE 2: 136:288211
 REFERENCE 3: 136:288047
 REFERENCE 4: 136:287834
 REFERENCE 5: 136:287763
 REFERENCE 6: 136:287693
 REFERENCE 7: 136:287681
 REFERENCE 8: 136:287679
 REFERENCE 9: 136:287654
 REFERENCE 10: 136:287564

L106 ANSWER 14 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 67-63-0 REGISTRY

CN 2-Propanol (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Isopropyl alcohol (8CI)

OTHER NAMES:

CN 1-Methylethanol

CN 1-Methylethyl alcohol

CN 2-Hydroxypropane

CN 2-Propyl alcohol

CN Alcojel

CN Alcosolve 2

CN Autosept

CN Avantin

CN Avantine

CN Combi-Schutz

CN Dimethylcarbinol

CN Hartosol

CN Imsol A

CN IPA

CN IPS 1

CN IPS 1 (alcohol)

CN iso-Propanol

CN iso-Propyl alcohol

CN Isohol

CN Isopropanol

CN Lutosol

CN n-Propan-2-ol

CN Petrohol

CN PRO

CN Propol

CN sec-Propanol

CN sec-Propyl alcohol

CN Sterisol Hand Disinfectant

CN Takineocol

CN Virahol

FS 3D CONCORD

DR 8013-70-5

MF C3 H8 O

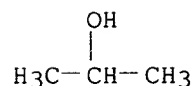
CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

36659 REFERENCES IN FILE CA (1967 TO DATE)

572 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
36724 REFERENCES IN FILE CAPLUS (1967 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288327
REFERENCE 2: 136:288322
REFERENCE 3: 136:288314
REFERENCE 4: 136:288312
REFERENCE 5: 136:288309
REFERENCE 6: 136:288308
REFERENCE 7: 136:287175
REFERENCE 8: 136:287116
REFERENCE 9: 136:286793
REFERENCE 10: 136:286716

L106 ANSWER 15 OF 15 REGISTRY COPYRIGHT 2002 ACS

RN 64-17-5 REGISTRY

CN Ethanol (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Ethyl alcohol (6CI, 7CI, 8CI)

OTHER NAMES:

CN 100C.NPA

CN Alcare Hand Degermer

CN Alcohol

CN Alcohol anhydrous

CN Algrain

CN Anhydrol

CN Anhydrol PM 4085

CN Desinfektol EL

CN Duplicating Fluid 100C.NPA

CN Esumiru WK 88

CN Ethicap

CN Ethyl hydrate

CN Ethyl hydroxide

CN Hinetoless

CN IMS 99

CN Jaysol

CN Jaysol S

CN Methylcarbinol

CN Molasses alcohol

CN Potato alcohol

CN SDA 3A

CN SDA 40-2

CN SY Fresh M

CN Synasol

CN Tecsol

CN Tecsol C

FS 3D CONCORD

DR 8000-16-6, 8024-45-1, 121182-78-3

MF C2 H6 O

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,

DETERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA,
PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2,
USPATFULL, VETU, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

H₃C-CH₂-OH

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

130513 REFERENCES IN FILE CA (1967 TO DATE)
1060 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
130732 REFERENCES IN FILE CAPLUS (1967 TO DATE)
11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288328

REFERENCE 2: 136:288326

REFERENCE 3: 136:288314

REFERENCE 4: 136:288241

REFERENCE 5: 136:287983

REFERENCE 6: 136:287751

REFERENCE 7: 136:287599

REFERENCE 8: 136:287462

REFERENCE 9: 136:287451

REFERENCE 10: 136:287374

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 09:32:46 ON 01 MAY 2002

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FILE COVERS 1907 - 1 May 2002 VOL 136 ISS 18

FILE LAST UPDATED: 29 Apr 2002 (20020429/ED)

This file contains CAS Registry Numbers for easy and accurate

substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d all hitstr tot 1105

L105 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:760049 HCAPLUS

DN 135:322763

TI Spherical oxidic particles, process for their preparation and their use

IN Gellermann, Carsten; Wolter, Herbert

PA Fraunhofer-Gesellschaft Zur Foerderung Der Angewandten Forschung E.V., Germany

SO Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM C08K003-22

ICS C01G057-00; A61K006-00

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 49

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1146072	A1	20011017	EP 2001-109140	20010412
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 10018405	A1	20011025	DE 2000-10018405	20000413
PRAI	DE 2000-10018405	A	20000413		
AB	The spherical oxide particles have a particle size of 5-10,000 nm, contain 0.1-99.9 wt.%, preferably 60-95 wt.%, of an oxide of Ti, Zr, Al, Y, and/or Si and at least one lanthanide oxide. The particles are suitable for radio-opaque dental fillings, as radio-opaque carriers for medical uses, as contrast media, as catalyst, as NMR and tracer reagent, and for use in optical, elec., or electrooptical applications.				
ST	dental filling oxide particle manuf				
IT	Dental materials and appliances (fillings; spherical oxidic particles, process for their prepn. and their use)				
IT	Rare earth oxides RL: TEM (Technical or engineered material use); USES (Uses) (spherical oxidic particles, process for their prepn. and their use)				
IT	64-17-5, Ethanol, reactions 67-63-0, Isopropanol, reactions 681-84-5, Tetramethoxysilane 1336-21-6, Ammonium hydroxide 2530-85-0 32718-54-0, Methoxyethanol 142002-57-1 367509-45-3 RL: RCT (Reactant); RACT (Reactant or reagent) (spherical oxidic particles, process for their prepn. and their use)				
IT	1314-23-4, Zirconium oxide, uses 1314-36-9, Yttrium oxide, uses 1344-28-1, Aluminum oxide, uses 7440-00-8, Neodymium, uses 7440-52-0, Erbium, uses 7631-86-9, Silicon oxide, uses 13463-67-7, Titanium oxide, uses RL: TEM (Technical or engineered material use); USES (Uses) (spherical oxidic particles, process for their prepn. and their use)				

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

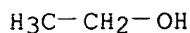
RE

(1) Kulzer & Co Gmbh; DE 3421157 A 1985 HCAPLUS

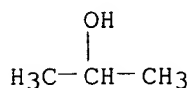
(2) Kulzer & Co Gmbh; WO 8600021 A 1986 HCAPLUS

(3) Rauter Vita Zahnfabrik; EP 0747034 A 1996 HCAPLUS

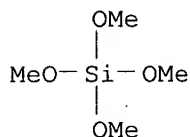
IT 64-17-5, Ethanol, reactions 67-63-0,
Isopropanol, reactions 681-84-5, Tetramethoxysilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(spherical oxidic particles, process for their prepn. and their use)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



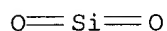
RN 67-63-0 HCAPLUS
CN 2-Propanol (9CI) (CA INDEX NAME)



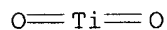
RN 681-84-5 HCAPLUS
CN Silicic acid (H_4SiO_4), tetramethyl ester (8CI, 9CI) (CA INDEX NAME)



IT 7631-86-9, Silicon oxide, uses 13463-67-7,
Titanium oxide, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(spherical oxidic particles, process for their prepn. and their use)
RN 7631-86-9 HCAPLUS
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO_2) (8CI, 9CI) (CA INDEX NAME)



L105 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 2001:416478 HCAPLUS
DN 135:10112
TI Buccal and dental care composition containing titanium
oxide and tetraalkoxysilane
IN Masuhara, Eiichi; Kadoma, Yoshinori; Yamauchi,
Junichi; Okada, Koichi; Yamaguchi, Satoshi
PA Kuraray Co., Ltd., Japan
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K006-02

ICS A61K006-083

CC 63-8 (Pharmaceuticals)

Section cross-reference(s): 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1104669	A1	20010606	EP 2000-125309	20001128 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001220309	A2	20010814	JP 2000-349422	20001116 <--
	US 2001002994	A1	20010607	US 2000-728121	20001204 <--
PRAI	JP 1999-344938	A	19991203	<--	

AB Provided are a **dental** and oral compn. capable of inhibiting **dental** plaque deposition and decomp. **dental** plaque to thereby prevent and cure **dental** diseases and oral diseases such as **dental** caries, **gingivitis**, **periodontitis** and other **periodontal** diseases (pyorrhea alveolaris, etc.), stomatitis, etc., and effective for preventing discoloration of **teeth** and **dental** materials and for preventing and removing halitosis, and a method of using the compn. for **dental** and oral care. The **dental** and oral compn. contains a photocatalytic **titanium** oxide or its precursor; at least one selected from **silicon** compds. such as **tetraalkoxysilanes**, **silicone** resins and their precursors and **silica**; and a liq. medium; or it contains a photocatalytic **titanium** oxide or its precursor and a liq. medium. The method for oral and **dental** care comprises applying the compn. to **teeth**, gums, oral mucous membranes or **dental** materials in the **mouth**, or applying the compn. to **dental** materials not in the **mouth**, to thereby fix photocatalytic **titanium** oxide on them or form a photocatalytic **titanium** oxide-contg. film on them. A compn. contained **titanium** oxide, **tetraethoxysilane** and **water**.

ST buccal **dental** care compn **titania** silane

IT **Dental materials and appliances**
(buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

IT **Mouth**
Periodontium
Tooth
(disease; buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

IT Drug delivery systems
(oral; buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

IT 64-17-5, **Ethanol**, biological studies 78-10-4, **Tetraethoxysilane** 7440-22-4, **Silver**, biological studies 7440-50-8, **Copper**, biological studies 7440-66-6, **Zinc**, biological studies 7732-18-5, **Water**, biological studies
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

IT 13463-67-7, **Titania**, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

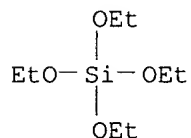
(1) Advance Co Ltd; JP 09175923 A 1997 HCAPLUS

(2) Agency Of Ind Science & JP 11021127 A 1999 HCAPLUS

(3) Anon; PATENT ABSTRACTS OF JAPAN 1997, V1997(11)
 (4) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(01)
 (5) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(10)
 (6) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(04)
 (7) Boots Co Plc; WO 9324103 A 1993 HCAPLUS
 (8) Kuraray Co Ltd; JP 10273412 A 1998 HCAPLUS
 (9) Osada Res Inst Ltd; JP 11137573 A 1999
 (10) Toto Ltd; JP 10195382 A 1998 HCAPLUS
 IT 64-17-5, Ethanol, biological studies 78-10-4,
 Tetraethoxysilane 7440-22-4, Silver,
 biological studies 7440-50-8, Copper, biological
 studies 7440-66-6, Zinc, biological studies
 7732-18-5, Water, biological studies
 RL: BUU (Biological use, unclassified); MOA (Modifier or additive use);
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (buccal and dental care compn. contg. titanium
 oxide and tetraalkoxysilane)
 RN 64-17-5 HCAPLUS
 CN Ethanol (9CI) (CA INDEX NAME)

H₃C-CH₂-OH

RN 78-10-4 HCAPLUS
 CN Silicic acid (H₄SiO₄), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 7440-22-4 HCAPLUS
 CN Silver (8CI, 9CI) (CA INDEX NAME)

Ag

RN 7440-50-8 HCAPLUS
 CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

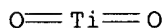
RN 7440-66-6 HCAPLUS
 CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

RN 7732-18-5 HCAPLUS
 CN Water (8CI, 9CI) (CA INDEX NAME)

H₂O

IT 13463-67-7, **Titania**, biological studies
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (buccal and dental care compn. contg. titanium
 oxide and **tetralkoxysilane**)
 RN 13463-67-7 HCAPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)



L105 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:31291 HCAPLUS

DN 134:90934

TI Compositions comprising **organosiloxane** resins for delivering
 oral care substances

IN Yue, Jiang; Crisanti, Mark Matthew; Majeti, Satyanarayana; Burgess, Steven
 Carl; Reno, Elizabeth Ann; Li, Li; Mitra, Sekhar

PA The Procter & Gamble Company, USA

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-16

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001001939	A1	20010111	WO 2000-US15890	20000609
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
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EP	1196135	A1	20020417	EP 2000-941305	20000609
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
WO	2001001941	A1	20010111	WO 2000-US18187	20000630
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
WO	2001001958	A1	20010111	WO 2000-US18188	20000630
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

WO 2001001942 A1 20010111 WO 2000-US18189 20000630
 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
 CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE,
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 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
 PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
 UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1196137 A1 20020417 EP 2000-945085 20000630
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

PRAI WO 1999-US15130 A 19990702
 WO 1999-US15131 A 19990702
 WO 2000-US15890 W 20000609
 WO 2000-US15891 A 20000609
 WO 2000-US18189 W 20000630

AB Disclosed is a compn. for delivering an oral care substance to the oral cavity, comprising: (a) an **organosiloxane** resin; (b) a volatile carrier capable of solubilizing the **organosiloxane** resin; (c) a rheol. modifier; and (d) at least one oral care substance. The present invention is also directed to such compns. comprising: (a) an **organosiloxane** resin; (b) a fluid **diorganopolysiloxane** polymer; (c) a volatile carrier capable of solubilizing the **organosiloxane** resin and the fluid **diorganopolysiloxane** polymer; (d) a rheol. modifier; and (e) at least one oral care substance. Further disclosed is a method of using these compns. A hydrophobic oral care compn. contained **organosiloxane** resin (MQ resin) 25, **silicone** gum (dimethicone gum) 12.5, oral care substance 17, volatile carrier (isododecane) 44.5, and bentone clay (Bentone 27) 1%.

ST oral care **organosiloxane** resin dentifrice

IT Antihistamines

(H2; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT **Tooth**

(color; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Analgesics

Antimicrobial agents

Antioxidants

Antiviral agents

Chelating agents

Dentifrices

Flavoring materials

Pigments, nonbiological

Surfactants

Sweetening agents

(compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Acrylic polymers, biological studies

Clays, biological studies

Hydrocarbon oils

Mica-group minerals, biological studies

Peroxides, biological studies

Peroxy acids

Peroxysulfates

Siloxanes (nonpolymeric)

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(compns. comprising **organosiloxane** resins for delivering oral care substances)

IT **Tooth**

(enamel; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Chlorites
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (metal salts; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Group IIIA element compounds
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (perborates; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Silk
 (powders; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Polyamide fibers, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (powders; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Mica-group minerals, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (titanium; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT 64-17-5, Hydrocarbon oils, biological studies 78-93-3, Hydrocarbon oils, biological studies 87-99-0, Xylitol 109-60-4, Propyl acetate 141-78-6, Ethyl acetate, biological studies 471-34-1, Calcium carbonate, biological studies 546-93-0, Magnesium carbonate 563-69-9, Carbonoperoxoic acid 1309-37-1, Red iron oxide, biological studies 1314-13-2, Zinc oxide, biological studies 1327-43-1, Aluminum magnesium silicate 1332-37-2, Iron oxide, biological studies 1343-88-0, Magnesium silicate 7631-86-9, Silica, biological studies 7787-59-9, Bismuth oxychloride 9002-88-4, Polyethylene 9004-34-6, Crystalline cellulose, biological studies 9005-25-8, Starch, biological studies 9006-65-9, Dimethicone 9016-00-6, Dimethylpolysiloxane 9016-00-6D, Polydimethylsiloxane, polyalkylene oxide-modified 12227-89-3, Black iron oxide 12691-60-0, (Bentone 27) 13463-67-7, Titanium dioxide, biological studies 14807-96-6, Talc, biological studies 16984-48-8, Fluoride ion, biological studies 31807-55-3, (Isododecane) 31900-57-9, Polydimethylsiloxane 31900-57-9D, Polydimethylsiloxane, polyalkylene oxide-modified 51274-00-1, Yellow iron oxide 56091-38-4, Bentone gel ipm 57455-37-5, Ultramarine 163702-07-6, Methyl nonafluorobutyl ether 163702-08-7, Methyl nonafluoroisobutyl ether 219484-64-7, Hfe 7100
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (compns. comprising **organosiloxane** resins for delivering oral care substances)

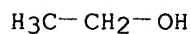
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

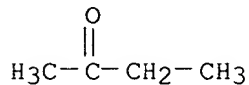
(1) Hill, I; US 5651959 A 1997 HCAPLUS
 (2) Kedrowski, B; US 5866630 A 1999 HCAPLUS
 (3) Viccaro, J; US 5427770 A 1995 HCAPLUS

IT 64-17-5, Hydrocarbon oils, biological studies 78-93-3, Hydrocarbon oils, biological studies 141-78-6, Ethyl acetate, biological studies 7631-86-9, Silica, biological studies 13463-67-7, Titanium dioxide, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (compns. comprising **organosiloxane** resins for delivering oral

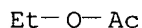
care substances)
 RN 64-17-5 HCAPLUS
 CN Ethanol (9CI) (CA INDEX NAME)



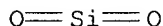
RN 78-93-3 HCAPLUS
 CN 2-Butanone (8CI, 9CI) (CA INDEX NAME)



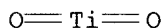
RN 141-78-6 HCAPLUS
 CN Acetic acid ethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 7631-86-9 HCAPLUS
 CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 13463-67-7 HCAPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)



L105 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1993:154648 HCAPLUS

DN 118:154648

TI Sol-gel composition containing hydrolyzable silicic ester for producing glassy dental coatings

IN Patel, Bipin Chandra Muljibhai

PA British Technology Group Ltd., UK

SO Brit. UK Pat. Appl., 29 pp.

CODEN: BAXXDU

DT Patent

LA English

IC ICM C23C018-12

ICS A61K006-027

CC 63-7 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2257439	A1	19930113	GB 1992-14549	19920708
	GB 2257439	B2	19950104		
	WO 9300878	A1	19930121	WO 1992-GB1235	19920708
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	EP 595844	A1	19940511	EP 1992-914267	19920708
	EP 595844	B1	19970305		

R: CH, DE, ES, FR, GB, IT, LI, NL, SE

JP 06509088 T2 19941013 JP 1992-502100 19920708

US 5433956 A 19950718 US 1993-142487 19931129

PRAI GB 1991-15154 19910712

WO 1992-GB1235 19920708

AB Glassy coatings are made by curing in situ a coating of a sol gel, xerogel or heat-consolidated gel compn. comprising a hydrolyzable **silicic** ester, 1-4 mol water per mol of Si and a solvent e.g. **alc.**, filled with a filler such as kaolinite or with flat plates of mica, which may be coated with **TiO₂**, **Cr₂O₃** or **Fe₂O₃**. The **silicic** ester may be Si tetrahalide or **tetraalkoxysilicon**. Further fillers are laponite, zeolite, talc, and vermiculite. The mica or talc may be coated with **silane**. The compn. may also contain a metal alkoxide capable of participating in forming glass structures with the **silicic** ester, e.g. alkoxides of Na, Zr, Al and Ti. The compn. may be cured to form the glassy coating by the use of laser radiation or a butane gas flame. Part of the **silicic** ester may be replaced with other glass formers such as B-based sol gels. The coating may be applied to **teeth** as a **dental** fissure sealant or varnish to protect restorations, or as an inherently colored cosmetic coating, or as a prophylactic coating. In an application for slow drug release the coating may be charged with a drug, e.g. for treating dentin hypersensitivity or **periodontal** disease. A mixt. of (EtO)₄Si 99.62, (sec-BuO)₄Zr 13.79, (sec-BuO)₃Al 19.89, and EtONa 9.3 g, made under dry N, was exposed to atm. moisture, to give a sol-gel, which turned into a glassy xerogel, for **dental** use.

ST sol gel **dental** glass coating

IT Mica-group minerals, biological studies

Zeolites, biological studies

RL: BIOL (Biological study)

(fillers, in sol-gel compns., for glassy **dental** coatings)

IT **Alcohols**, compounds

RL: BIOL (Biological study)

(Group IVB element salts, sol-gel compns. contg., for glassy **dental** coatings)

IT **Alcohols**, compounds

RL: BIOL (Biological study)

(Group VB element salts, sol-gel compns. contg., for glassy **dental** coatings)

IT Group IVB element compounds

Group VB element compounds

RL: BIOL (Biological study)

(**alcoholates**, sol-gel compns. contg., for glassy **dental** coatings)

IT **Alcohols**, compounds

RL: BIOL (Biological study)

(alkali metal salts, sol-gel compns. contg., for glassy **dental** coatings)

IT **Dental materials and appliances**

(glasses, coatings, sol-gel compns. for)

IT **Dental materials and appliances**

(sealants, sol-gel compns. for)

IT 1308-38-9, Chromium oxide, biological studies 1309-37-1, Ferric oxide,

biological studies 7803-62-5, **Silane**, biological studies

13463-67-7, **Titanium** dioxide, biological studies

RL: BIOL (Biological study)

(coating, on fillers, in sol-gel compns., for glassy **dental** coatings)

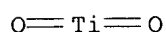
IT 1318-00-9, Vermiculite 1318-74-7, Kaolinite, biological studies

14807-96-6, Talc, biological studies 53320-86-8, Laponite

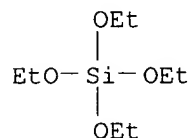
RL: BIOL (Biological study)

(filler, in sol-gel compns., for glassy **dental** coatings)

IT 78-10-4, Tetraethoxysilicon 141-52-6, Sodium ethoxide
 546-68-9, Titanium tetra-isopropoxide 1343-98-2D,
 Silicic acid, esters 2269-22-9, Aluminum tri-sec-butoxide
 7429-90-5D, Aluminum, alkoxides 7440-23-5D, Sodium, alkoxides
 7440-32-6D, Titanium, alkoxides 7440-67-7D, Zirconium,
 alkoxides 125211-18-9, Zirconium tetra-sec-butoxide
 RL: BIOL (Biological study)
 (sol-gel compns. contg., for glassy dental coatings)
 IT 13463-67-7, Titanium dioxide, biological studies
 RL: BIOL (Biological study)
 (coating, on fillers, in sol-gel compns., for glassy dental
 coatings)
 RN 13463-67-7 HCAPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)



IT 78-10-4, Tetraethoxysilicon 7440-32-6D,
 Titanium, alkoxides
 RL: BIOL (Biological study)
 (sol-gel compns. contg., for glassy dental coatings)
 RN 78-10-4 HCAPLUS
 CN Silicic acid (H₄SiO₄), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 7440-32-6 HCAPLUS
 CN Titanium (8CI, 9CI) (CA INDEX NAME)

Ti

L105 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1993:154647 HCAPLUS

DN 118:154647

TI Sol-gel composition containing hydrolyzable silicic ester for
 producing glassy coatings for dental use

IN Patel, Bipin Chandra Muljibhai

PA British Technology Group Ltd., UK

SO Brit. UK Pat. Appl., 33 pp.

CODEN: BAXXDU

DT Patent

LA English

IC ICM C23C018-12

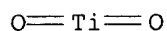
ICS A61K006-027

CC 63-7 (Pharmaceuticals)

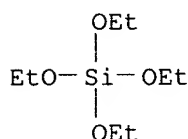
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2257438	A1	19930113	GB 1992-14548	19920708
	GB 2257438	B2	19950104		
	WO 9300879	A1	19930121	WO 1992-GB1236	19920708
	W: JP, US				

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE
 EP 595840 A1 19940511 EP 1992-914109 19920708
 EP 595840 B1 19960612
 R: CH, DE, ES, FR, GB, IT, LI, NL, SE
 JP 06509089 T2 19941013 JP 1992-502101 19920708
 ES 2090661 T3 19961016 ES 1992-914109 19920708
 US 5433941 A 19950718 US 1993-142486 19931129
 PRAI GB 1991-15153 19910712
 WO 1992-GB1236 19920708
 AB Glassy coatings are made by curing in situ a sol gel, xerogel or heat-consolidated gel compn. comprising a hydrolyzable **silicic** ester, a solvent, and alkoxides of a Group IA metal, preferably a combination of Al, Zr, and Na, or a combination of Zr and Na. The compn. may also contain a filler, e.g. talc, mica, laponite, zeolite, kaolinite or vermiculite, which may be coated with **TiO₂**, Cr₂O₃ or Fe₂O₃. The solvent may be a ketone or alc. The compn. may be cured to form the glassy coating by the use of laser radiation or a butane gas flame. The coating may be applied to **teeth** as a **dental** fissure sealant or varnish to protect restorations, or (if filled) as an inherently colored cosmetic coating, or as a prophylactic coating.
 ST sol gel **silicate dental** coating
 IT Mica-group minerals, uses
 Zeolites, uses
 RL: USES (Uses)
 (dental filler contg.)
 IT **Dental materials and appliances**
 (glasses, coatings, sol-gel compns. for)
 IT **Alcohols**, compounds
 RL: BIOL (Biological study)
 (metal salts, sol-gels contg., for **dental** coatings and sealants)
 IT **Dental materials and appliances**
 (sealants, sol-gel compns. for)
 IT 1309-37-1, Ferric oxide, biological studies 11118-57-3, Chromium oxide 13463-67-7, **Titanium** dioxide, biological studies
 RL: BIOL (Biological study)
 (coating, on fillers, in sol-gel compns., for **dental** coatings)
 IT 1318-00-9, Vermiculite 1318-74-7, Kaolinite, biological studies 14807-96-6, Talc, biological studies 53320-86-8, Laponite
 RL: BIOL (Biological study)
 (filler, in sol-gel compns., for **dental** coatings)
 IT 78-10-4 141-52-6, Ethoxy sodium 546-68-9, **Titanium** tetraisopropoxide 2269-22-9, Tri-sec-butoxy aluminum 3374-12-7, Tetra-sec-butoxy **titanium** 125211-18-9, Zirconium tetra-sec-butoxide
 RL: BIOL (Biological study)
 (sol-gel compn. contg., for **dental** coatings)
 IT 1343-98-2D, **Silicic** acid, esters, hydrolysable 7429-90-5D, Aluminum, alkoxides 7440-23-5D, Sodium, alkoxides 7440-32-6D, **Titanium**, alkoxides 7440-67-7D, Zirconium, alkoxides
 RL: BIOL (Biological study)
 (sol-gels contg., for **dental** coatings and sealants)
 IT 13463-67-7, **Titanium** dioxide, biological studies
 RL: BIOL (Biological study)
 (coating, on fillers, in sol-gel compns., for **dental** coatings)
 RN 13463-67-7 HCAPLUS
 CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)



IT 78-10-4
 RL: BIOL (Biological study)
 (sol-gel compn. contg., for **dental** coatings)
 RN 78-10-4 HCAPLUS
 CN Silicic acid (H₄SiO₄), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



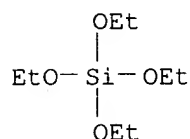
IT 7440-32-6D, **Titanium**, alkoxides
 RL: BIOL (Biological study)
 (sol-gels contg., for **dental** coatings and sealants)
 RN 7440-32-6 HCAPLUS
 CN Titanium (8CI, 9CI) (CA INDEX NAME)

Ti

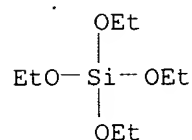
L105 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2002 ACS
 AN 1992:158989 HCAPLUS
 DN 116:158989
 TI Coated cement powder for **dental** and medical uses
 IN Fuchigami, Kiyomi; Morino, Yoshihiro
 PA Matsukaze K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM A61K006-06
 ICS A61L025-00; C04B012-02; C04B028-34
 CC 63-7 (Pharmaceuticals)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03284606	A2	19911216	JP 1990-85440	19900330
	JP 2935725	B2	19990816		
AB	A cement powder, esp. Zn phosphate cement, carboxylate cement, and glass ionomer cement, is coated with an oxide selected from oxides of Al , Si , Ti , Zr , Sn , B , and Zn . The coated cement is suitable for bonding bone structure, in an adequate hardening time. The cement powder may be coated with an alk. earth metal oxide prior to the metal oxide application. Thus, a com. glass ionomer cement (30g) and 200 mL water were mixed, heated to 80.degree., and to this was added dropwise an EtOH soln. (50 mL) contg. 0.9g tetraethoxysilane . The suspension was refluxed 6 h, and the powder was isolated, dried, and pulverized to give a cement.				
ST	bone cement metal oxide coating				
IT	Alkaline earth metals Oxides, biological studies RL: BIOL (Biological study) (bone cement powder coating with)				
IT	Medical goods (bone cements, metal oxide coating in)				
IT	Dental materials and appliances (cements, powder coating with metal oxides for)				

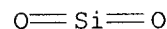
- IT 78-10-4, Tetraethoxysilane 78-10-4D,
Tetraethoxysilane, hydrolyzates, mixt. with
tetrabutoxysilane 1303-86-2, Boron oxide, biological studies
1314-13-2, Zinc oxide, biological studies 1314-23-4, Zirconia,
biological studies 1332-29-2, Tin oxide 1344-28-1, Aluminum oxide,
biological studies 7550-45-0, Titanium tetrachloride,
biological studies 7631-86-9, Silica, biological
studies 10026-04-7, Silicon tetrachloride
13463-67-7, Titania, biological studies
RL: BIOL (Biological study)
(bone cement powder coating with)
- IT 78-10-4, Tetraethoxysilane 78-10-4D,
Tetraethoxysilane, hydrolyzates, mixt. with
tetrabutoxysilane 7631-86-9, Silica,
biological studies 10026-04-7, Silicon tetrachloride
13463-67-7, Titania, biological studies
RL: BIOL (Biological study)
(bone cement powder coating with)
- RN 78-10-4 HCAPLUS
CN Silicic acid (H₄SiO₄), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



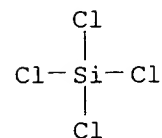
- RN 78-10-4 HCAPLUS
CN Silicic acid (H₄SiO₄), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



- RN 7631-86-9 HCAPLUS
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)



- RN 10026-04-7 HCAPLUS
CN Silane, tetrachloro- (9CI) (CA INDEX NAME)



- RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO₂) (8CI, 9CI) (CA INDEX NAME)

O=Ti=O

L105 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1991:415648 HCAPLUS

DN 115:15648

TI Methacrylate polymer **dental** materials containing
siloxane-titanoxane fillers

IN Panster, Peter; Janda, Ralf; Kleinschmit, Peter

PA Degussa A.-G., Fed. Rep. Ger.

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K006-08

ICS C08F002-44; C08L083-04; C08L085-00; C08G077-22; C08G077-42;
C08G079-00; A61C005-00; A61C013-00

ICA C07F007-04; C07F007-28; C07F007-18; C08F002-48; C08L083-10

CC 63-7 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3913250	A1	19901025	DE 1989-3913250	19890422
	DE 3913250	C2	19930218		
	EP 394797	A2	19901031	EP 1990-107180	19900414
	EP 394797	A3	19910717		
	EP 394797	B1	19930602		
	EP 394797	B2	19980107		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL				
	AT 89996	E	19930615	AT 1990-107180	19900414
	CA 2015083	AA	19901022	CA 1990-2015083	19900420
	US 5132337	A	19920721	US 1990-513281	19900420
	JP 02295911	A2	19901206	JP 1990-105504	19900423
	US 5248706	A	19930928	US 1992-885550	19920519
PRAI	DE 1989-3913250		19890422		
	EP 1990-107180		19900414		
	US 1990-513281		19900420		

AB A paste which can be hardened into a highly-polishable **dental** material by an initiator, comprises a polymerizable methacrylate and a finely-dispersed **siloxane-titanoxane** filler.
Refluxing 1404.2 g Si(OEt)₄ and 95.7 g (iso-PrO)₄Ti in NH₃-contg. EtOH gave a product which was autoclaved with NH₃, to give TiO₂.20SiO₂. This was ground and **silanated** with 3-methacryloyloxypropyltrimethoxysilane. A paste was made of this material 61.0, 2,2-bis[p-(.gamma.-methacryloyloxy-.beta.-hydroxypropoxy)phenyl]propane 26.4, triethyleneglycol dimethacrylate 11.6, camphorquinone 0.2, and N,N-dimethyl-p-toluidine 0.1 parts by wt. The **dental** materials are usable for inlays, fillings, sealants, etc.

ST **dental** material **siloxane** **titanoxane** filler

IT Acrylic polymers, biological studies

RL: BIOL (Biological study)

(dental materials, **siloxane-titanoxane**
fillers for)IT **Dental materials and appliances**(fillers for, **siloxane-titanoxanes** as)IT **Siloxanes and Silicones**, biological studies

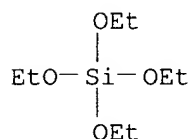
RL: PREP (Preparation)

(prepn. of, as filler, for **dental** materials)IT **Titanoxanes**

RL: PREP (Preparation)

(siloxane-, prepn. of, as filler, for **dental**

materials)
 IT **Titanoxanes**
 RL: PREP (Preparation)
 (siloxane-, vinyl, prepn. of, as filler, for dental materials)
 IT **Titanoxanes**
 RL: PREP (Preparation)
 (siloxane-, Ph, prepn. of, as filler, for dental materials)
 IT **Siloxanes and Silicones**, biological studies
 RL: PREP (Preparation)
 (titanoxane-, prepn. of, as filler, for dental materials)
 IT **Siloxanes and Silicones**, biological studies
 RL: PREP (Preparation)
 (titanoxane-, vinyl, prepn. of, as filler, for dental materials)
 IT **Siloxanes and Silicones**, biological studies
 RL: PREP (Preparation)
 (titanoxane-, Ph, prepn. of, as filler, for dental materials)
 IT 26426-05-1
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (dental material, siloxane-titanoxane filler for)
 IT 78-08-0 78-10-4 1067-25-0 2530-85-0 3087-37-4
 RL: RCT (Reactant)
 (reaction of, siloxane-titanoxane filler by, for dental materials)
 IT 78-10-4
 RL: RCT (Reactant)
 (reaction of, siloxane-titanoxane filler by, for dental materials)
 RN 78-10-4 HCAPLUS
 CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



L105 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1985:442679 HCAPLUS

DN 103:42679

TI Composites for dental restoration

PA Tokuyama Soda Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F002-44

ICS A61K006-08; C08F004-40

CC 63-7 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 60011505	A2	19850121	JP 1983-116839	19830630
	JP 04061003	B4	19920929		

AB Composites for **dental** restoration consist of (a) vinyl monomers, (b) org. peroxides, (c) amines and (d) spherical particles contg. **silica** and metal oxides (oxides of group I, II, III and IV metals). Thus, 0.1% HCl and tetra-Et **silicate** [78-10-4] in MeOH were mixed and stirred at room temp. for 2 h, followed by addn. of tetra-Bu **titanate** [5593-70-4] in iso-PrOH to form a mixt. Next, addnl. tetra-Et **silicate** in MeOH was treated with NH₃-EtOH soln. and with the mixt. at 20.degree. for 2 h, and the resultant mixt. was evapd. and heated at 900.degree. for 4 h to give particles contg. **silica** and TiO₂. Particles were silylated, coated with 2,2-bis(4-(2-hydroxy-3-methacryloxyphenyl))propane-triethylene glycol dimethacrylate copolymer [26426-05-1] and mixed with benzoyl peroxide [94-36-0] and 2,5-di-tert-butyl-4-methylphenol to give compn. A. Sep., polymer-coated particles were mixed with N,N-bis(2-hydroxyethyl)-4-methylaniline [3077-12-1] and 2,5-di-tert-butyl-4-methylphenol to give compn. B. An equal vol. of compns. A and B had a compressive strength of 3800 kg/cm², and a bending strength of 81 kg/cm² after mixing.

ST **dental** composite compn; vinyl monomer amine **dental**;
peroxide vinyl monomer amine **dental**

IT Oxides, biological studies
RL: BIOL (Biological study)
(**dental** composite particles contg.)

IT Amines, biological studies
Peroxides, biological studies
RL: BIOL (Biological study)
(**dental** composites contg.)

IT Vinyl compounds, polymers
RL: BIOL (Biological study)
(polymers, for **dental** composites)

IT **Dental materials and fillings**
(**composites**, vinyl polymer-coated metal oxide particles for)

IT 1304-28-5, biological studies 1305-78-8, biological studies 1309-48-4,
biological studies 1310-53-8, biological studies 1313-59-3, biological
studies 1314-11-0, biological studies 1332-29-2 1344-28-1,
biological studies 7631-86-9, biological studies 11130-29-3
12057-24-8, biological studies 12136-45-7, biological studies
51745-87-0 53801-45-9 54566-73-3
RL: BIOL (Biological study)
(**dental** composite particles contg.)

IT 94-36-0, biological studies 99-97-8 105-74-8 3077-12-1
RL: BIOL (Biological study)
(**dental** composites contg.)

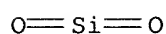
IT 78-10-4 109-88-6 124-41-4 150-46-9 683-60-3 865-33-8
1071-76-7 2172-12-5 2269-22-9 2388-07-0 2414-98-4 2556-53-8
2914-17-2 2914-19-4 3214-53-7 5593-70-4 14254-05-8 25063-27-8
58114-86-6
RL: BIOL (Biological study)
(in metal oxide particles prepn., for **dental** composites)

IT 26426-05-1 41472-00-8 59976-92-0 81359-56-0 92783-35-2
96536-49-1 97087-44-0 97087-45-1 97087-46-2 97087-47-3
97087-48-4 97104-69-3
RL: BIOL (Biological study)
(metal oxide particles coated with, for **dental** composites)

IT 7631-86-9, biological studies 51745-87-0
RL: BIOL (Biological study)
(**dental** composite particles contg.)

RN 7631-86-9 HCAPLUS

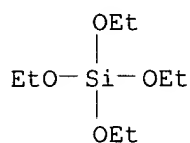
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 51745-87-0 HCAPLUS
 CN Titanium oxide (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
Ti	x	7440-32-6

IT 78-10-4
 RL: BIOL (Biological study)
 (in metal oxide particles prepn., for dental composites)
 RN 78-10-4 HCAPLUS
 CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



=> sel rn 1105
 E27 THROUGH E144 ASSIGNED

=> fil reg
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STRUCTURE FILE UPDATES: 29 APR 2002 HIGHEST RN 409058-68-0
 DICTIONARY FILE UPDATES: 29 APR 2002 HIGHEST RN 409058-68-0

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES
 for more information. See STNote 27, Searching Properties in the CAS
 Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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(FILE 'REGISTRY' ENTERED AT 09:31:44 ON 01 MAY 2002)

FILE 'REGISTRY' ENTERED AT 09:32:16 ON 01 MAY 2002

FILE 'HCAPLUS' ENTERED AT 09:32:46 ON 01 MAY 2002
 SEL RN L105

FILE 'REGISTRY' ENTERED AT 09:33:37 ON 01 MAY 2002

L107 116 S E27-E144
 L108 3 S L107 AND L41
 L109 13 S L107 AND SI/ELS

L110 13 S L108,L109
L111 8 S L107 AND TI/ELS
L112 5 S L111 NOT L106

=> d ide can tot l112

L112 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 7550-45-0 REGISTRY

CN Titanium chloride (TiCl4) (T-4)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Titanium chloride (TiCl4) (8CI)

OTHER NAMES:

CN Tetrachlorotitanium

CN Titanium chloride

CN Titanium tetrachloride

CN Titanium(IV) chloride

DR 15612-71-2, 44246-22-2

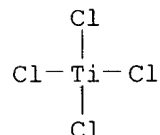
MF Cl4 Ti

CI COM

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)



17649 REFERENCES IN FILE CA (1967 TO DATE)

904 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

17663 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:287409
REFERENCE 2: 136:286461
REFERENCE 3: 136:286446
REFERENCE 4: 136:284708
REFERENCE 5: 136:282960
REFERENCE 6: 136:282313
REFERENCE 7: 136:279882
REFERENCE 8: 136:279881
REFERENCE 9: 136:279862
REFERENCE 10: 136:279859

*additional "Ti"
compds in refs
1-8, Set L105*

L112 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 5593-70-4 REGISTRY

CN 1-Butanol, titanium(4+) salt (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Butyl alcohol, titanium(4+) salt (8CI)
 CN Butyl titanate(IV) (6CI, 7CI)
 OTHER NAMES:
 CN 1-Butanol titanium salt (4:1)
 CN B 1
 CN B 1 (titanate)
 CN Butyl orthotitanate
 CN Butyl titanate(IV) ((BuO)4Ti)
 CN n-Butanol titanium salt
 CN n-Butyl titanate
 CN Orgatix T 25
 CN Orgatix TA 25
 CN TA 25
 CN TBT
 CN TBT 100
 CN Tetra-n-butoxytitanium
 CN Tetra-n-butyl orthotitanate
 CN Tetra-n-butyl titanate
 CN Tetrabutoxytitanium
 CN Tetrabutoxytitanium(IV)
 CN Tetrabutyl orthotitanate
 CN Tetrabutyl titanate
 CN Tetrakis(butanolato)titanium
 CN Tilcom TNBT
 CN Titanium butoxide (Ti(OBu)4)
 CN Titanium n-butoxide
 CN Titanium tetra-n-butoxide
 CN Titanium tetrabutoxide
 CN Titanium tetrabutylate
 CN Titanium tetrakis(butoxide)
 CN Titanium(4+) butoxide
 CN Titanium(IV) butoxide
 CN Titanium(IV) n-butoxide
 CN Titanium, tetrabutoxy-
 CN Tyzor TBT
 DR 176679-99-5, 757-47-1, 1336-30-7, 159179-54-1, 124760-72-1, 59978-00-6,
 15821-58-6, 104183-13-3, 106206-82-0, 114486-31-6, 75659-54-0,
 153313-64-5, 156138-67-9, 26198-43-6, 118547-86-7, 184529-19-9,
 188622-64-2, 210407-19-5, 216859-05-1, 250741-36-7
 MF C4 H10 O . 1/4 Ti
 CI COM
 LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CEN,
 CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETHERM*, ENCOMPLIT,
 ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT,
 IFIUDB, MEDLINE, MSDS-OHS, PDLCOM*, PIRA, RTECS*, SPECINFO, TOXCENTER,
 USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 CRN (71-36-3)

H₃C-CH₂-CH₂-CH₂-OH

1/4 Ti(IV)

6010 REFERENCES IN FILE CA (1967 TO DATE)
 345 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

6023 REFERENCES IN FILE CAPLUS (1967 TO DATE)
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:286900
REFERENCE 2: 136:286624
REFERENCE 3: 136:285915
REFERENCE 4: 136:283943
REFERENCE 5: 136:282964
REFERENCE 6: 136:282849
REFERENCE 7: 136:270535
REFERENCE 8: 136:270453
REFERENCE 9: 136:270332
REFERENCE 10: 136:270016

L112 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 3374-12-7 REGISTRY

CN 2-Butanol, titanium(4+) salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN sec-Butyl alcohol, titanium(4+) salt (8CI)

CN sec-Butyl titanate(IV) (6CI, 7CI)

OTHER NAMES:

CN Tetra sec-butoxytitanium

CN Tetra(sec-butyl) titanate

CN Tetraisobutoxytitanium

CN Titanium tetra-sec-butoxide

DR 73740-05-3, 216859-06-2

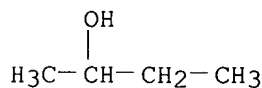
MF C4 H10 O . 1/4 Ti

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM,
DETERM*, USPATFULL

(*File contains numerically searchable property data)

CRN (78-92-2)



1/4 Ti(IV)

45 REFERENCES IN FILE CA (1967 TO DATE)
45 REFERENCES IN FILE CAPLUS (1967 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:125003
REFERENCE 2: 132:194842
REFERENCE 3: 130:42078
REFERENCE 4: 128:308528

REFERENCE 5: 128:300202

REFERENCE 6: 127:319409

REFERENCE 7: 127:109345

REFERENCE 8: 126:239711

REFERENCE 9: 126:238153

REFERENCE 10: 126:39610

L112 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 3087-37-4 REGISTRY

CN 1-Propanol, titanium(4+) salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Propyl alcohol, titanium(4+) salt (8CI)

CN Propyl titanate(IV) (Ti(OPr)₄) (6CI, 7CI)

OTHER NAMES:

CN Propyl titanate

CN Tetra-n-propyl titanate

CN Tetrakis(propoxy)titanium

CN Tetrapropoxytitanium

CN Tetrapropyl orthotitanate

CN Tetrapropyl titanate

CN Titanium propoxide (Ti(OPr)₄)

CN Titanium propylate

CN Titanium tetrapropoxide

CN Titanium tetrapropoxide (Ti(OPr)₄)

CN Titanium tetrapropylate

CN Titanium(4+) propoxide

CN Titanium(IV) propoxide

CN Titanium, tetrapropoxy-

DR 120551-51-1, 79494-49-8, 213750-04-0, 216859-03-9, 253144-52-4

MF C₃ H₈ O . 1/4 Ti

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
CSCHEM, DETHERM*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, TOXCENTER, USPAT2,
USPATFULL, VTB

(*File contains numerically searchable property data)

Other Sources: EINECS**, NDSL**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

CRN (71-23-8)

H₃C-CH₂-CH₂-OH

1/4 Ti(IV)

753 REFERENCES IN FILE CA (1967 TO DATE)

49 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

755 REFERENCES IN FILE CAPLUS (1967 TO DATE)

34 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:251245

REFERENCE 2: 136:234208

REFERENCE 3: 136:223337

REFERENCE 4: 136:169013
REFERENCE 5: 136:136213
REFERENCE 6: 136:127756
REFERENCE 7: 136:126402
REFERENCE 8: 136:122610
REFERENCE 9: 136:122110
REFERENCE 10: 136:118890

L112 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 546-68-9 REGISTRY

CN 2-Propanol, titanium(4+) salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Isopropyl alcohol, titanium(4+) salt (8CI)

CN Titanium isopropoxide (Ti(OC₃H₇)₄) (7CI)

OTHER NAMES:

CN A 1

CN A 1 (titanate)

CN Isopropyl orthotitanate

CN Isopropyl titanate(IV) ((C₃H₇O)₄Ti)

CN Orgatix TA 10

CN TA 10

CN Tetraisopropanolatotitanium

CN Tetraisopropoxytitanium

CN Tetraisopropoxytitanium(IV)

CN Tetraisopropyl orthotitanate

CN Tetraisopropyl titanate

CN Tetrakis(isopropanolato)titanium

CN Tetrakis(isopropoxy)titanium

CN Tetrakis(isopropylato)titanium(IV)

CN Tetrakis(isopropoxyloxy)titanium

CN Tilcom TIPT

CN Titanium isopropoxide

CN Titanium isopropylate

CN Titanium tetraisopropoxide

CN Titanium tetraisopropylate

CN Titanium tetrakis(iso-propoxide)

CN Titanium tetrakis(isopropoxide)

CN Titanium(4+) isopropoxide

CN Titanium(IV) isopropoxide

CN Titanium, tetrakis(1-methylethoxy)-

CN TPT

CN Tyzor TPT

DR 176680-01-6, 167709-32-2, 128796-34-9, 131530-94-4, 94340-28-0, 3651-85-2,
119651-13-7, 112797-74-7, 73264-97-8, 71515-81-6, 147809-57-2, 50336-56-6,
118815-04-6, 186518-71-8, 187601-75-8, 195382-13-9, 198699-88-6,
210407-18-4, 216859-04-0, 244173-55-5, 245654-31-3, 255839-65-7,
259264-35-2, 310882-94-1, 347859-73-8, 366477-01-2

MF C₃ H₈ O . 1/4 Ti

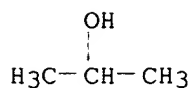
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST,
CIN, CSCHEM, CSNB, DETHERM*, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB,
MEDLINE, MRCK*, MSDS-OHS, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2,
USPATFULL

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (67-63-0)



1/4 Ti(IV)

6105 REFERENCES IN FILE CA (1967 TO DATE)
339 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
6128 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288047
REFERENCE 2: 136:286900
REFERENCE 3: 136:286888
REFERENCE 4: 136:286710
REFERENCE 5: 136:286633
REFERENCE 6: 136:286516
REFERENCE 7: 136:286445
REFERENCE 8: 136:286205
REFERENCE 9: 136:284859
REFERENCE 10: 136:283091

=> fil wpix
FILE 'WPIX' ENTERED AT 09:46:51 ON 01 MAY 2002
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FILE LAST UPDATED: 29 APR 2002 <20020429/UP>
MOST RECENT DERWENT UPDATE 200227 <200227/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> The BATCH option for structure searches has been
enabled in WPINDEX/WPIDS and WPIX >>>

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY >>>

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SEE <http://www.derwent.com/dwpi/updates/dwpicov/index.html> <<<

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX TOOLS OF THE
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<http://www.derwent.com/data/stn3.pdf> <<<

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GUIDES, PLEASE VISIT:
http://www.derwent.com/userguides/dwpi_guide.html <<<

=> d his l113-

(FILE 'REGISTRY' ENTERED AT 09:33:37 ON 01 MAY 2002)

SET COST ON

SET COST OFF

FILE 'WPIX' ENTERED AT 09:35:41 ON 01 MAY 2002

E JP99-344938/AP,PRN

L113 1 S E4
 L114 23969 S E05-E?/MC
 L115 75 S A61K006-093/IC, ICM, ICS
 L116 2063 S L114, L115 AND E05-L01/MC
 L117 1 S L116 AND A61K006-04/IC, ICM, ICS
 L118 1 S L116 AND A61K033-24/IC, ICM, ICS
 L119 0 S L116 AND A61K033-34/IC, ICM, ICS
 L120 0 S L116 AND A61K033-38/IC, ICM, ICS
 L121 0 S L116 AND A61K033-30/IC, ICM, ICS
 L122 3 S L116 AND (A61K006-02 OR A61C013 OR A61P001-02)/IC, ICM, ICS
 L123 3 S L113, L117, L118, L122
 L124 2 S L123 NOT GOEBEL ?/AU

FILE 'WPIX' ENTERED AT 09:46:24 ON 01 MAY 2002

FILE 'WPIX' ENTERED AT 09:46:51 ON 01 MAY 2002

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L124 ANSWER 1 OF 2 WPIX (C) 2002 THOMSON DERWENT

AN 2001-342941 [36] WPIX

DNC C2001-106095

TI Dental and orologic composition useful for treating teeth, gums and dental materials in or outside the mouth and for preventing diseases such as halitosis comprises photocatalytic titanium oxide or its precursor.

DC A96 D21 E11

IN KADOMA, Y; MASUHARA, E; OKADA, K; YAMAGUCHI, S; YAMAUCHI, J

PA (KURS) KURARAY CO LTD

CYC 30

PI US 2001002994 A1 20010607 (200136)* 14p A61K007-16
 AU 2000071840 A 20010607 (200137) A61K006-093 <--
 CA 2327230 A1 20010603 (200138) EN A61K033-24 <--
 EP 1104669 A1 20010606 (200140) EN A61K006-02 <--
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI TR

JP 2001220309 A 20010814 (200154) 10p A61K006-04 <--
 ADT US 2001002994 A1 US 2000-728121 20001204; AU 2000071840 A AU 2000-71840
 20001127; CA 2327230 A1 CA 2000-2327230 20001201; EP 1104669 A1 EP
 2000-125309 20001128; JP 2001220309 A JP 2000-349422 20001116

PRAI JP 1999-344938 19991203

IC ICM A61K006-02; A61K006-04; A61K006-093;
 A61K007-16; A61K033-24

ICS A61C013-00; A61C013-08; A61C013-23;
 A61K006-027; A61K006-083; A61P001-02; A61P043-00

AB US2001002994 A UPAB: 20010628

NOVELTY - A dental and orologic composition comprises photocatalytic titanium oxide or its precursor and optionally a liquid medium.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a film of a composition (also claimed) comprising:

(a) photocatalytic titanium oxide or its precursor;
 (b) at least one of (i) a silicon compound of formula (I) or its hydrolyzate, (ii) a silicone resin or its precursor and (iii) silica; and
 (c) a liquid medium.

SiX1X2X3X4 (I)

X1-X4 = alkoxy or halogen.

USE - The film may be applied to the surface of teeth, gums, dental materials in or outside the mouth, oral mucous membranes, tooth crown restorative materials, dentures, denture (re)bases, orthodontic bases, wires, bridges, mouth pieces, teeth restored with composite resin and teeth coated with dental manicure. The composition may be used to prevent or cure oral or dental diseases (e.g. halitosis), prevent or retard discoloration of teeth or dental materials, bleach discolored teeth and treat dental materials (all claimed).

ADVANTAGE - The film effectively prevents the adhesion of plaque to teeth and dental materials. The composition is superior to that of JP-A-175923/1997 (comprising methyl alpha -cyanoacrylate and a resin component such as polymethyl methacrylate) which polymerized extremely rapidly and had poor adhesion and safety implications.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A99-A; D08-A05; E05-E02; E05-E03; E05-L01

TECH UPTX: 20010628

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The ratio of (a) to (b) is 20/1-1/100 (in terms of moles of titanium and silicon atoms). The photocatalytic titanium oxide precursor is a titanium alkoxide. The silicone resin precursor is a silane and/or silazane compound. The liquid medium is water and/or alcohol, acetone, methyl ethyl ketone, ethyl acetate, chloroform, toluene and/or hexane. The composition further comprises a thickener and particle(s) selected from silver, copper, zinc, metal salt and their mixture.

Preferred Film: The film is produced by applying the composition to a surface, drying and/or baking, and exposing to light.

L124 ANSWER 2 OF 2 WPIX (C) 2002 THOMSON DERWENT

AN 1997-156093 [15] WPIX

DNC C1997-050120

TI Composite dental material for fillings, bonding crowns or making dentures, inlays, crowns etc. - comprises a metal oxide-silica-organic cpd. complex cpd..

DC D21 E11

IN SATO, H

PA (GCDE) GC CORP; (GCDE) GC DENTAL IND CORP; (GCGC-N) GC KK

CYC 4

PI DE 19634189 A1 19970227 (199715)* 20p A61K006-02 <--

GB 2304720 A 19970326 (199716) 50p A61K006-093 <--

JP 09059119 A 19970304 (199719) 17p A61K006-08

US 5773489 A 19980630 (199833) A61K006-00

GB 2304720 B 19990818 (199935) A61K006-093 <--

ADT DE 19634189 A1 DE 1996-19634189 19960823; GB 2304720 A GB 1996-17030

19960814; JP 09059119 A JP 1995-235987 19950823; US 5773489 A US

1996-689779 19960814; GB 2304720 B GB 1996-17030 19960814

PRAI JP 1995-235987 19950823

IC ICM A61K006-00; A61K006-02; A61K006-08; A61K006-093

ICS A61K006-027; A61K006-083; C08F283-12

ICA C08G077-20

ICI C08G079-00

AB DE 19634189 A UPAB: 19990609

Inorganic - organic composite dental filling material in whose particles visible light at 360 - 830 nm does not scatter and having a refractive index (nD) for the sodium D-line of 1460 - 1600, comprises a cpd. of formula (I)

$$aM10x/2.bSiO2.cM2O(4-i-j)/2R1iR2j \text{ (I)}$$

M1 = Ti, Zr, Y, La, Ta or Al, bonded to Si or M2 via a crosslinking O atom ; M2 = Si and / or Ti ; R1 = non-functional gp. ; R2 = organic cpd. reacted with an organic functional gp. ; $a/(a + b) = 0 - 0.65$; $c/(a + b) = 0.02 - 3$; $i = 0 - 2$; $j = 1 - 3$; $(i + j) = 1 - 3$; and x = valency of M1.

Pref., if M2 is Si then R2 is an organic cpd. that has been reacted with a cpd. contg. an unsatd. double bond, glycidyloxy, amino, mercapto or alkoxy gp., and if M2 is Ti then R2 is an organic cpd. that has been reacted with a cpd. contg. an unsatd. double bond or an amino gp. R1 is phenyl and / or 1-10C alkyl. M1 is chosen from one or more of Zr, Y, La or Ta and $a/(a + b) = 0.1 - 0.65$.

USE - Used as filling material or bonding agent for securing artificial crowns, or for inlays, crowns, bridges or dentures.

ADVANTAGE - Improved surface smoothness with resistance to abrasion, improved matrix mechanical properties and reduced transparency.

Dwg.0/0

FS

CPI

FA

AB; DCN

MC

CPI: D08-A01; D08-A02; E05-B03; E05-E; E05-L01; E05-M;
E05-N; E05-P